

In the Specification

Page 1, before the 1st line, insert the following:

RELATED APPLICATION

This is a division of U.S. Patent Application 09/133,987, filed August 13, 1998.

Amend the paragraphs in the Examples section of the Specification (page 34, line 17 through page 35, line 19) as follows:

~~Attached herewith as an appendix "B"~~ Discussed below are transcript listings of mRNA sequences and clusters of ESTs, which were generated from a public domain database of a mouse, in accordance with preferred embodiments of the present invention. There are three cluster descriptions, each having the following format:

- (a) a short description of the cluster;
- (b) a list of the mRNA sequences and the associated ESTs used to generate the sequences;
- (c) for each EST alternative spliced variant, a cross-reference listing between the sequence and a consensus of all the ESTs;
- (d) a sequence listing of the consensus of all the ESTs, which need not match any particular variant; and
- (e) transcriptions of the alternative spliced variants detected for the mRNA sequence.

For example, sequence number 10827, contains ~~on page B-8~~ two transcripts, one corresponding to each of the two alternative spliced variants.

The cross-reference listing ~~shown between page B-1 (left column) and B-2 (left column)~~ shows gaps in the sequence for the 10827_0 variant. These gaps correspond to alternative spliced regions which are part of the 10827_1 variant, ~~as shown on pages B-2 (left column) to B-2 (right column)~~.

In a preferred embodiment of the invention, alternative spliced regions which correspond to graph nodes are displayed using a different color, so that they stand out on a graphical display.

The sequence 15537, ~~on pages B-9 to B-20~~ contains only one variant, ~~transcribed on page B-20~~.

The sequence 19101, ~~on pages B-21 to B-26~~ contains four alternative spliced variants, only two of which are transcribed ~~on page B-26~~, the rest shown only as part of cross-referencing against the consensus sequence. Additional transcripts of mRNA sequences are ~~shown on pages B-27 to B-31 and/or in Israel patent application 121,806, filed September 21, 1997, the disclosure of which is incorporated herein by reference.~~

In accordance with a preferred embodiment of the invention, a DNA chip is designated to differently recognize a particular variant by including in the DNA chip sensor array only those n-groups (where n is preferably 25) which appear only in one variant but not in the other. There is also provided in accordance with a preferred embodiment of the invention, a kit of short DNA sequences, determined from such an analysis of mRNA expression. ~~Such kits are preferably constructed from the variants attached herein in appendix B.~~